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Supplementary Material

Autosomal dominant tibial muscular dystrophy in Estonia

Supplementary Table 1. Clinical features and muscle MRI results of individuals with TTN gene mutations.

	Sex	Age of onset	Age at diagnosi s	Variants	Muscle MRI results	Haplotype length (Mb)	Symptoms
Individual 1,	M	1,5-3 y	12 y	FINmaj,	At the age of 12 years, early degenerative changes	176,747,580	Leg pain and muscle weakness, myopathic face, low
Family 1				NM_001267550.2 (TTN):	in the tibialis anterior and hypotrophic distal		muscle tone, low deep tendon reflexes, remarkable lumbar hyperlordosis, muscle weakness (proximal >distal), and
				c.64672+2dup	hamstrings muscles (compared with normal quadriceps) were observed.		Gowers' sign. Muscle strength was low in all muscle groups (grade IV).
Individual 2,	F	6-7 y	11 y	FINmaj,	At the age of 11 years, diffuse degenerative	176,747,580	EMG: Changes characteristic of myopathic damage. Leg pain and muscle fatigue. A mildly myopathic face,
Family 1	1	0 / 9	11 y	NM 001267550.2	changes in all the lower limb muscles, more	170,717,500	waddling gait, low muscle tone, low deep tendon reflexes,
J				(TTN):	clearly in the thighs, with hypotrophic changes of		diminished muscle strength (distal and proximal),
				c.64672+2dup	the distal hamstrings muscle.		pseudohypertrophy of the calves, and partial Gowers' sign.
Individual 3, Family 1	M	-	37 y	FINmaj	At the age of 38 years, minimal fatty degeneration in the peroneus longus and right tibialis anterior muscles.	176,747,580	Unable to rise high on his heels. Mild ankle dorsiflexion weakness. The calf muscles are mildly hypertrophic.
Individual 4*, Family 2	M	-	4 y	FINmaj	-	176,822,769	Developmental and speech disorders.
Individual 5, Family 2	F	-	38 y	FINmaj	No significant changes in the anterior tibialis muscle.	176,608,594	Walking on heels is unsteady.
Individual 6,	F	-	37 y	FINmaj	No significant changes in the anterior tibialis	176,608,594	Able to walk on heels. The calf muscles are mildly
Family 2					muscle.		hypertrophic.
Individual 7, Family 2	M	50 y	60 y	FINmaj	At the age of 60 years, almost total fatty replacement in the anterior lower limb muscles; milder fatty degeneration in the hamstrings and gluteus muscles.	176,490,140	Weakness in the legs. Started from the right foot. EMG: Reduced sensitivity in the feet and lower legs, along with decreased dorsiflexion.

Individual 8*, Family 2	F	60-70 y	80 y	FINmaj	-	177,026,416	Weakness on the left side. Walks with the support of a cane. Deep tendon reflexes were brisker on the right side compared to the left. Plantar reflexes were absent. EMG: Changes are characteristic of myopathic damage in the lower leg.
Individual 9*, Family 3	M	-	0 y	FINmaj	-	-	-
Individual 10*, Family 3	M	-	31 y	FINmaj	-	176,472,515	Difficulty walking upstairs due to pain in the calves.
Individual 11*, Family 4	M	-	35 y	FINmaj	-	177,282,815	Legs get fatigued when walking at others' pace.
Individual 12, Family 4	M	45 y	69 y	FINmaj, NM_001267550.2 (TTN): c.73994C>T p.(Thr24665Met)	At the age of 70 years, almost total fatty replacement in the anterior lower limb muscles, the hamstrings, and the gluteus muscles; In the upper body: fatty replacement in paravertebral, heavy biceps, right latissimus dorsi, and parts of the supra-/infraspinal, and left pectoralis muscles.	177,282,815	Weakness in dorsiflexion and the Achilles reflex is absent. Unable to walk on heels and toes. Abnormal gait, frequent falls. Recent decline in strength, muscle pain, and cramping in the legs.
Individual 13; Family 5	M	55 y	62 y	FINmaj	At the age of 62 years, almost total fatty replacement in the anterior lower limb muscles; milder fatty degeneration in the hamstrings and gluteus muscles.	-	Weakness in dorsiflexion, with the right being more affected than the left. The right Achilles reflex is absent. Sensitivity is normal. Unable to walk on heels, stepping on toes is possible.

F: female; M: male; y: years; MRI: magnetic resonance imaging; EMG: electromyography; *declined further clinical investigations or asymptomatic/mildly affected individuals so imaging at this stage would not be informative